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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/725,398 | 12/03/2003 | Manabu Kato | 03500.017748. | 3411 |
| 5514 | 7590 | 05/19/2005 | EXAMINER | |
| FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112 | | | CHERRY, EUNCHA P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2872 | |

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8m

Office Action Summary

Application No.

10/725,398

Applicant(s)

KATO, MANABU

Examiner

EUNCHA P. CHERRY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-11 and 14-24 is/are rejected.
- 7) ☒ Claim(s) 2,3,12 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, 7-11, 14, 15 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al (US 5,543,955).

Yamazaki et al discloses a scanning optical apparatus (Fig. 1), comprising; a plurality of light source means (12a and 26a), a plurality of first optical elements that convert a light flux emitted from the light source means (12b and 26b); the plurality of second optical elements that convert the light flux emitted from the first optical elements into a longitudinal linear image in a main scanning direction (14 and 28); a deflection element (18) deflects the light flux emitted from the second optical elements; a plurality of third optical elements that guide the light flux deflected by the deflection element to a surface to be scanned (24, 32); synchronous detection elements that obtain synchronous signals (40 and 42 and see column 8, lines 44-45);

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and fourth optical elements that guide the light flux deflected by the deflection element to the synchronous detection elements (38 and 22), wherein the second optical element and the fourth optical element are independent of each other, in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned deflected by the deflection element assumed as a reference point, the second optical element is located at a position which is farther from the reference point than the fourth optical element (see the relation between 14 and 22). The second optical element includes a cylindrical lens (column 4, line 6). The fourth optical element includes an anamorphic lens (see column 5, lines 6-7) and is capable of imaging a light flux at a position where the synchronous detection element is disposed or in a vicinity thereof within a main scanning section (see Fig. 1). The light source means is an independent modulatable multi-beam light source (12a and 26a). Further comprising a reflecting mirror that changes an optical path of the light flux which is disposed on an optical path from the light source means to the deflection element (34). The fourth optical element is disposed in a region sandwiched between an optical path from the light source means to the deflection element and an optical path from the deflection element to the surface to be scanned (see 38). The light source

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means and the synchronous detection element are disposed on the same electrical board (see Fig. 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al.

Yamazaki et al discloses the claimed invention as set forth above except for the lens that is made of plastic. It would have been obvious to one of ordinary skill in the art to make the lens made of plastic because it is lighter in weight and cheaper in cost.

5. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al in view of Sumiyoshi et al (US 5,602,578).

Yamazaki et al discloses the claimed invention as set forth above except the scanning optical device of Yamazaki et al is

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used in a color image forming apparatus comprising a plurality of photosensitive members, a plurality of developing units, a plurality of transferring units, a fixing device that fixes the transferred toner images to the materials to be transferred, and a printer controller. Yamazaki et al discloses a color image forming apparatus (Fig. 1) comprising a plurality of photosensitive members (211), a plurality of developing units (214, 215, 216, 217), a plurality of transferring units (241), a fixing device (251) that fixes the transferred toner images to the materials to be transferred, a printer controller (270) and a scanning optical device (213). It would have been obvious to one of ordinary skill in the art to use the scanning optical device of Yamazaki et al to the color imaging apparatus of Sumiyoshi et al for the purpose of obtaining improved color imaging apparatus (see Yamazaki et al reference column 1, lines 49-65).

Allowable Subject Matter

6. Claims 2, 3, 12, 13, 21/2, 21/3, 23/2, 23/3, 22/12, 22/13, 24/12 and 24/13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. The following is a statement of reasons for the indication of allowable subject matter: claims are allowable at least for the reason that the prior art does not teach or reasonably suggest the scanning optical apparatus that satisfies the conditional equations as set forth in the claimed combination.

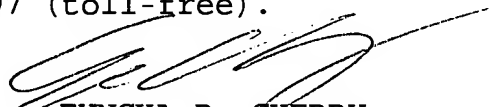
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P. CHERRY whose telephone number is 571-272-2310. The examiner can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DREW DUNN can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EUNCHA P. CHERRY
Primary Examiner
Art Unit 2872

5/17/05